

THE GENUS VERTICORDIA (MYRTACEAE) IN NORTHERN AUSTRALIA

By N. B. Byrnes

Queensland Herbarium, Brisbane

Summary

Two new species of *Verticordia*, *V. decussata* and *V. verticillata* from Northern Australia are described and some notes on distribution are given.

The genus *Verticordia* is generally restricted to the south western part of Australia and in "Flora Australiensis", Bentham listed only one species, *V. cunninghamii* Schau. north of latitude 18°S. A further two taxa have been found north of this latitude.

Verticordia decussata S. T. Blake ex N. Byrnes, sp. nov. affinis *V. cunninghamii* Schau. sed foliis decussatis valde confertis et floribus parvioribus differt. Typus: *Dunlop* 3652 (BRI, holotypus; DNA, isotypus).

Frutex patulus usque ad 2 m altus. **Folia** decussata, valde conferta, sessilia, coriacea, rectangularia, 1-2.5 mm longa ca 0.4 mm lata, obtusa, punctata, supra profunde canaliculata. **Flores** albi, axillares in pedicellos breves. **Bracteolae** caducae, alabastrum includentes ca 3 mm longae, unaquae que carina distincta in acumen desinens. **Calycis tubus** costis 10 interdum haud prominentibus. **Lobi calycis** ad 5 mm longi, divaricate ramosi. **Petala** late ovata, irregulariter serrata, ca 3 mm longa. **Stamina et staminodia** ca 2 mm longa. **Stylus** conicus, ca 5 mm longus, annulo ciliorum infra apicem. **Ovarium** uniloculare placentatione basilari et ovulis 8-10. **Fructus** ignoti.

Shrub to 2 m high, spreading. **Leaves** decussate, very crowded, sessile, coriaceous, rectangular, 1-2.5 mm long, about 0.4 mm wide, obtuse, deeply channelled above, punctate. **Flowers** white on short axillary pedicels. **Bracteoles** enclosing bud, about 3 mm long, each with a distinct keel ending in a point, caducous. **Calyx tube** with 10 ribs, sometimes indistinct. **Calyx lobes** to 5 mm long, divaricately branched. **Petals** broadly ovate, irregularly serrate, about 3 mm long. **Stamens and staminodes** about 2 mm long. **Style** conical, about 5 mm long with a ring of cilia below the apex. **Ovary** unilocular with 8-10 ovules borne basally. **Fruit** unknown.

Northern Territory: Edith R., 14° 09' S 132° 18' E, Sep 1974 *Dunlop* 3652 (BRI, holo; DNA, iso); above UDP Falls, Jul 1973, *Gittins* 2693 (BRI); ½ mile W of Nourlangie Rock, Jul 1972, *Martensz* AE 168 (DNA); Nourlangie Rock, Jun 1974, *Fox* 495 (DNA) & Jul 1972, *Byrnes* 2760 (DNA); Nourlangie Rock area, Nov 1972, *McKean* B776 (DNA); Oenpelli, Oct 1948, *Specht* 1112 (PERTH).

Range. This species is confined to the Northern Territory and to date has not been found south of 15°S latitude.

Habitat. Sandstone areas usually growing in crevices or on shallow sandy soils.

This species has been known for a considerable time but only recently have sufficient collections been made to give a reasonable representation of the species. Dr. S. T. Blake suggested the name and intended to describe the species (*Specht & Mountford, Am.—Aust. Exp. to Arnhem Land* 3:273. 1958) but did not continue with the work. The very tightly packed decussately arranged leaves enable determination of sterile material.

Verticordia verticillata N. Byrnes sp. nov. affinis *V. cunninghamii* Schau. sed foliis verticillatis, staminodiis brevioribus et stylo longiori differt. **Typus:** Dunlop 3089 (BRI, holotypus; DNA, isotypus).

Verticordia cunninghamii Schau. var. *longistyla* C. A. Gardner.

Frutex ad 5 m altus. **Folia** verticillata, linearia, plerumque falcata, triquetra, apiculata, sessilia 1–3 cm longa, ad 1 mm lata, punctata inconspicue. **Flores** albi, axillares in pedicellos ad 1 cm longus plerumque in panícula frondoso dispositi. **Bracteolae** caducae, alabastrum includentes, ca 5 mm longae, carina in acumen distincta desinens. **Calycis tubus** costis 5 haud prominentibus. **Lobi calycis** 6–8 mm longi, divaricate ramosi. **Petala** ovata, irregulariter serrata, 4–6 mm longa. **Stamina** ca 3 mm longa; staminodia ca 2 mm longa et ambo longitudine $\frac{1}{2}$ partem superantia in tubum conata. **Stylus** 1–1.2 cm longus, pilis apicem versus. **Ovarium** uniloculare, placentatione basilari et ovulis 8–10 in annulo. **Fructus** ex calyce leviter aucto semine uno continens constat.

Shrub to 5 m high. **Leaves** verticillate, linear, usually falcate, triquetrous, apiculate, sessile, 1–3 cm long and up to 1 mm wide, inconspicuously punctate. **Flowers** white, axillary on pedicels to 1 cm long and usually in a leafy panicle. **Bracteoles** enclosing the flower buds, about 5 mm long, each with a keel ending in a distinct point, caducous. **Calyx tube** with 5 indistinct ribs. **Calyx lobes** 6–8 mm long, divaricately branched. **Petals** ovate, 4–6 mm long, irregularly serrate. **Stamens** about 3 mm long; staminodes about 2 mm long, both fused together into a tube for more than $\frac{1}{2}$ of their length. **Style** 1–1.2 cm long with hairs below the apex. **Ovary** unilocular with 8–10 ovules borne basally in a ring. **Fruit** a slightly enlarged calyx containing a single seed.

Northern Territory. Eva Valley Stn, 14° 14' S 133° 00' E, Oct 1973, *Dunlop* 3089 (BRI, holo; DNA, iso); Groote Eylandt, May 1948 *Specht* (BRI); Oenpelli, Sep 1948, *Specht* 1041 (BRI, PERTH); East Alligator R. area, Aug 1973, *Parker* 174 (BRI, DNA) & Jul 1972, *Lazarides* 7576 (BRI); ca 1.5 miles NW of Cannon Hill Airstrip, Aug 1972, *Martensz* AE 248 (BRI); Springvale, *Giles* (BRI); Adelaide R., Jun 1943, *Tyack Bake* (BRI); Katherine, *Musspratt* SS0396 (DNA); 20 miles W of Katherine, Sep 1961, *Speck* 1661 (BRI, PERTH); Eva Valley Stn, Oct 1973, *Robinson* EV70 (DNA). **Western Australia.** 15° 45' S 128° 44' E, Sep 1970, *Scarth-Johnson* 557 (BRI); Deception R., *Langfield* 391 (PERTH); Wyndham Rd., Sep 1970, *Scarth-Johnson* 560 (PERTH); near Mt. Hann, Jul 1921, *Gardner* (PERTH) (holotype of *V. cunninghamii* var. *longistyla*); 14 miles from Kununurra on Wyndham Rd., Oct 1966, *Thompson* 15 (PERTH).

Range. The northern part of the Northern Territory and the Kimberley area of Western Australia.

Habitat. On a wide range of well drained soils in monsoonal areas.

This species closely resembles *V. Cunninghamii* in the field and has been confused with it in herbaria but differs from it in having verticillate leaves with indistinct oil glands, a much longer style and comparatively shorter staminodes. Details of these characters were examined on the type material of *V. cunninghamii* (Cunningham's collection) at Kew by A. Kanis (pers. comm.). This enabled the clarification as to which taxon was the undescribed species.

In C. A. Gardner "Bot. Notes, Kimberley Div. of W.A. 74 (1923)" *V. cunninghamii* var. *longistyla* was described. Examination of the type material revealed that it belongs to this taxon.

Originally the generic description (de Candolle, Prod. 3:208. 1828) included only opposite leaves. Bentham (Fl. Aust. 3:16, 1866) expanded the description to include alternate leaves and now an addition needs to be made to include this species with its verticillate leaves. It is typical of the genus in all other characters examined.

V. cunninghamii is the most common species in Northern Australia and has the greatest range, extending from the Queensland border near the Nicholson R. to the western Kimberley area of Western Australia.